



## Course Description:

This Training course is targeted for individuals/teams and manual testers. Who have no prior experience in QA, Selenium, any programming language or any other test automation tool? Course will start with a brief introduction of SDLC, STLC, manual and automation testing and Programming concepts. Later will tread through to the point where you will be comfortable writing your own Selenium test scripts. Course ends with a project where you have to write test scripts based on given sets of requirements. These tests will be graded and will gauge your comfort level with Selenium. This course is designed for those who work as individual contributors in their team or want to clear interviews of Selenium specific jobs. At the end of this course, you will be able to actively participate in Selenium based projects. Participants will be able to clear Selenium based job interviews.

**\*\*\* NOTE: After completion of this course, we will provide Resume preparation, Interview preparation and job placement facility with 100% job success rate.**

# Course Curriculum:

## Quality Assurance

- ❖ **Quality Assurance**- A brief introduction to QA and the need for QA in job market.
- ❖ **SDLC** – A brief discussion on **S**oftware **D**evelopment **L**ife **C**ycle.
- ❖ **STLC** - A brief discussion on **S**oftware **T**est **L**ife **C**ycle
- ❖ **Test Type** – A detailed overview of different type of test in real world and how to perform these tests.
- ❖ **Defect Life Cycle** - A brief discussion on **S**oftware **D**efect **L**ife **C**ycle and how to create Bug Report.
- ❖ **Development Methodologies** - A brief discussion on different types of Software Development Methodologies like **Agile, Water Fall, and Scrum** etc.
- ❖ **Assessment** – A short quiz will take place for making sure the entire class get a clear understanding of the week session.

## Testing Tools:

- ❖ **HP ALM**- A brief introduction to Application Life Cycle Management Tool and Managing Test Cases.
- ❖ **SOAP UI**- A brief introduction to SOAP UI and How to perform Web Service Testing.
- ❖ **JMeter** - A brief introduction to JMeter and How to perform Performance, Load and Stress Testing.
- ❖ **SQL** - A brief introduction to SQL and How to perform Database Testing.
- ❖ **Postman, Fiddler** - A brief introduction to Postman and Fiddler and How to perform **API** Testing.

## Object Oriented Programming with Core Java

- ❖ **Environment Setup**: This session will help you to set up your environment to work in java.
- ❖ **Eclipse IDE**: This topic might seem little off place here but it's very important topic to understand the tool you are using. Eclipse will be the primary choice of development environment and we will discuss features of eclipse here.
- ❖ **Getting Started with Java**: Introductory Chapter for complete beginner of Java. You will learn to start working in Java by installing and running and test java application. You will learn about 3 main things of Java. And difference between those (JDK, JRE and JVM).
- ❖ **Java Variables**: Variables are one of two things which in combination create class, most important part of Java. You will learn about different type of Variables and how they can be used or accessed.

- ❖ **Java Operator:** You will learn about Operators used in Java. What is precedence and associativity of every Operator?
- ❖ **Java Statement:** Java provided different types of Statement. Conditional or assignment. What are the purposes of different type of statement and how they can be used will be defined here.
- ❖ **Control Flow in Java:** You will learn about different type of control flow statement like for loop, while, do-while loop, for each loop.
- ❖ **Methods in Java:** You will learn about how to declaring and calling methods in Java.
- ❖ **Access Modifier:** This is how you define access levels for different thing in java. Be it Class / Variables / Method. Who and how it can be accessed from different part of Java world.
- ❖ **Exceptions:** In section of Java can throw exception. Here you will learn about different type of exception and how to handle it.
- ❖ **Class & Object:** In Object Oriented Programming Class is the most fundamental thing. In this chapter, you will get to know about Classes and Their Objects.
- ❖ **Object Oriented Programming:** You will learn about the four core components of Object Oriented Programming language – Inheritance, Polymorphism, Abstraction and Encapsulation.
- ❖ **Interface:** It defines the contract between different party that needs to be obeyed. You will learn about Interfaces and their different rules here.
- ❖ **Collections in Java:** Collection and their different implementation will be discussed here.
- ❖ **Assessment –** A short quiz will take place for making sure the entire class get a clear understanding of the week session.

### **Automation with Selenium using Java**

- ❖ **Automation:** A brief introduction to automation and the need for automation. How automation will enable you to beat competition and make you get the better jobs in market.

- ❖ **Set up Eclipse:** We will start with setting up WebDriver, so that every participant start flaunting off their newly learnt skills by writing some cool test programs.
- ❖ **WebDriver Interface:** This topic will make you familiar with the concept of browsers in WebDriver and how to launch basic Firefox browser using WebDriver. Here we will also talk about WebDriver & WebElement interface which will enable us to answer many complicated Interview Questions about WebDriver Implementation.
- ❖ **Browser & Navigation Commands:** This is something which everybody does very first thing when they learn Selenium. Opening & closing of browser and some navigation function on top of it.
- ❖ **WebElement Commands:** An important and basic need of Selenium Automation. This part enables every participant to start writing automation test in their organizations. These are the most commonly used operations on any website.
- ❖ **Locators:** In this class we will start learning about HTML, how elements are defined inside HTML document and what are the different attributes that are associated with an HTML element. We also try to find elements based on its attribute values.
- ❖ **Element Identification:** This part explains the lifesaver Add-Ons & tools for Selenium. Finding elements are the most common activity carried out in Selenium. These tools give us power to easily identify complex elements and help us in saving lot of time.
- ❖ **Tables, Checkboxes & Radio buttons:** Many applications involve use of web tables and list boxes. These skills will help participant to get the expertise on complex tables structures and write effective automation test.
- ❖ **Launching different browsers using WebDriver:** This topic will make you familiar with the concept of browsers in WebDriver and how to launch different types of browsers using WebDriver. This will also cover the Challenges faced in using browser other than Firefox
- ❖ **Selenium Waits, Alert & Switch Windows:** A little complexity will start now onwards. To use Waits effectively is very important for every automation tester. Wait helps us in switching windows, handling pop-ups, operating alerts correctly.
- ❖ **Action Class:** This gives us power on recently build Application with latest and complex object features. Hovering mouse or simulate Mouse and Keyboard operations can be done by using Action Class. A necessary thing to learn in Selenium journey.

- ❖ **Browser Profile:** Different types of browser profiles and user authentication models with examples will be discussed in this class. You will need these to test secured websites and user authenticated websites.
- ❖ **Advance Selenium:** In this class, we dive deep into understanding Instances, classes and Inheritance which are prerequisite to Automation Framework. We will also take a look at how program control flows and how we can alter it to suit our needs.
- ❖ **TestNG Framework:** TestNG is a wonderful off the shelf framework that can be used directly to create your test framework. We will learn about this framework here.
- ❖ **Automation Framework:** This class will cover the concepts of Frameworks. After this the participant would get to know that which type of Framework works best for their Application and the pros & cons of the selected framework. Knowledge of frameworks is key skill to learn.
- ❖ **LIVE PROJECT – Selenium Hybrid Framework:** In this class, we will explore some major frameworks by looking at the code and understanding the key component of the framework. A demo website will be taken and framework will be built on top of that which will simulate actual project scenario.
- ❖ **Assessment –** A short quiz will take place for making sure the entire class get a clear understanding of the week session.

### **Resume and Interview Preparation**

- ❖ **Resume Preparation –** We will prepare the resume for student based on their skill sets.
- ❖ **Interview Preparation –** An Interview preparation will be held with updated question that usually asked by interviewer.